MODIS TECHNICAL TEAM MEETING

March 7, 1996

The MODIS Technical Team Meeting was chaired by Vince Salomonson. Present were Bruce Guenther, Steve Ungar, Paul Chan, Dick Weber, Bill Barnes, Dorothy Hall, Ed Masuoka, Bob Murphy, Harry Montgomery, David Herring, Barbara Conboy, Wayne Esaias, and Ray Taylor.

1.0 SCHEDULE OF EVENTS

March 18 - 19	EOS Test Site Meeting
March 20	MODIS Science Software Review at Valley Forge
March 21 - 22	SWAMP at Valley Forge
March 26 - 27	MODIS Quarterly Review at SBRS
April 15	Quarterly Reports due to Barbara Conboy
April 30	MCST-Science Team Precursor Meeting at GSFC
May 1 - 2	MODIS Software Acceptance Review (tentative dates)
May 1 - 3	MODIS Science Team Meeting at GSFC
May 16 - 17	SWAMP Land Discipline Review

2.0 MINUTES OF THE MEETING

2.1 MODIS Project Reports

Weber reported that SBRS likely will not use electronics from the MODIS Engineering Model (EM) for Protoflight Model (PFM) testing. The PFM electronics now are expected to be ready in time to use for these tests, so the EM electronics are not needed here. The aft optics platform has been reassembled and SBRS will perform aft optics vibration tests next week. Discussions are being held now on how hard to vibrate the aft optics. Also, discussions on the solar diffuser tests are ongoing. Guenther added that he will have information to report on the criteria for the light source in the solar diffuser tests at next weekÕs Technical Team meeting.

Weber stated that MODIS Project is beginning to seriously review advanced technology options for a follow-on MODIS.

2.2 MCST Reports

Guenther reported that the MCST ATBD Õ95 was signed recently by the MODIS team leader. MCST has produced presentation material on both its Level 1B delivery and plans for operation of that software for the upcoming Science Software Review (SSR). Guenther said MCST will deliver its version 1 Level 1B software on Monday.

Guenther stated that after discussions with Murphy and Esaias, he feels that MCSTÕs vision of a Level 1B Validation Plan is moving forward. He expects to deliver a first draft of that plan in the early summer 1996. He will present his ideas to the MODIS team leader in two weeks.

2.2.1 MODIS Test Schedule

Guenther announced that there will be a teleconference at GSFC in Building 22, Room C233 tomorrow at 1 p.m. on the new SBRS-proposed test schedule. During that teleconference, MODIS science and support team members will have an opportunity to suggest priorities for the MODIS test schedule. Guenther hopes that Phil Slater, Howard Gordon, Wayne Esaias, Paul Menzel, Bill Barnes, and Otis Brown will participate in the teleconference.

Barnes added that the purpose of this meeting is to prioritize the SBRS test schedule, not to recommend removal of any proposed tests from the schedule. Some tests may be reduced, rather than eliminated. Others could be removed and then added later if time and resources permit.

Murphy inquired about the STR-60 water absorption test issue. At the Feb. 15 Technical Team Meeting, Ken Anderson announced that that test was canceled by SBRS. Barnes responded that that issue has gone away because the team feels that it can, based on the other MODIS bands, calibrate the MODIS water absorption band post launch. Murphy cautioned that Yoram Kaufman should be included in that decision as it could directly impact his science. Barnes responded that Kaufman just wants to be sure that Band 26 is calibrated, and MODIS Project can show him how they plan to calibrate it post launch without the STR-60 test. Salomonson asked Guenther and Barnes to discuss the issue further with Kaufman to ensure that there is no misunderstanding.

Esaias pointed out that the SeaWiFS instrument was delivered and sat on the shelf for a nearly a year prior to integration. He feels that before we decide to eliminate any tests, we should carefully review the schedule to ensure that there is a real need to deliver MODIS to Valley Forge on the currently set deadline.

2.2.2 Terminology Clarification

Montgomery reported that MCST hosted a brown bag luncheon recently to discuss the use of the term ÒreflectanceÓ versus ÒradianceÓ in reference to the MODIS Level 1B data format. According to Montgomery, there is now consensus among MODIS team members to use the term Òbidirectional reflectance factorÓ (BRF), which is defined as the radiance of a scene, divided by irradiance, divided by pi, multiplied by cosine theta for solar zenith angle.

2.3 SDST Reports

Masuoka announced that according to Vanessa Griffin, at Code YD (who has an oversight responsibility for MODIS), MODIS software status is green as a result of the Beta delivery and the presentation by SDST on science software

development since October. Masuoka noted that 31 of MODISÕ 39 data products will be stored in HDF (Hierarchical Data Format); CERES has 2 products that will be in HDF and MISR has 1.

Masuoka announced that ESDIS has proposed a Quality Assurance (QA) Workshop for September 1996 and has requested that Instrument Teams prepare draft QA plans in June 1996. The deadline for final QA plans is April 1997. He plans to discuss QA further at the upcoming MODIS Science Team Meeting.

Masuoka reported that one result of a joint ECS/SDST modeling effort was to identify a $1.5 million cost savings from stretching out the processings of 6- and 10-day Level 3 products. Chris Justice and Salomonson have looked over the option for stretching out the processing and have no objections to it, provided that a user can determine the order in which tiles (discrete spatial regions) will be processed.

Masuoka said that SDST is pressing ESDIS and HAIS to conduct a scalable test of the EOSDIS Core System (ECS) in early 1997. Currently, the ESDIS Project and HAIS plan to conduct a thorough test of the EOSDIS system after February 1998. SDST believes this will be too late to enable anyone to make changes in either the ECS or the MODIS science software.

SDST is proposing a Òday in the life of MODISÓ test to shake out bugs in the ECS and to identify performance bottlenecks in the system. SDST is working with the ESDIS project to develop a work plan and schedule for the test. The goal we are working toward is a scaled test of the at-launch, Release B, system in the early 1997 timeframe. The testing would be iterative and continue through to launch. As testing uncovers bugs in either ECS or the MODIS software, these bugs will be fixed and the tests will resume. SDST believes the system will fail when supplied realistic MODIS data volumes and data rates, and that the earlier these problems are uncovered the better.

Masuoka told the team that he is planning to meet with EOS Project personnel to discuss activating the NSIDC DAAC in the Release A timeframe to allow NSIDC to get experience running MODIS software in their DAAC.

Masuoka reported that SDST held a dry run yesterday of its SSR presentation and it went very well.

Masuoka told the team that whereas there seems to be good management and scheduling discipline in the MODIS Oceans and Land Groups, there are still problems in getting Level 3 product software from the Atmosphere Group.

2.4 GSFC DAAC Reports

Chan reported that GSFC DAAC personnel are helping SDST with the integration of MODIS science software and it is going smoothly. He said that the

DAAC is also helping SDST plan for the human entering of metadata. Chan plans to distribute a plan to all EOS instrument teams with a software tool that will enable each team to enter their own metadata.

2.5 Ocean Group Reports

Esaias is concerned about the status of SIMBIOS (Sensor Intercomparison and Merger for Biological and Interdisciplinary Oceanic Studies). He emphasized that the MODIS Ocean Group critically depends upon some type of SIMBIOS activity in order to meet its validation obligations. He would like some feedback from the Project on the status of SIMBIOS.

2.6 MODIS Project Scientist Reports

Murphy reported that the planned peer review for MODIS proposed new science team member activities is on track for March 11 - 13.

Murphy plans to hold a round robin on calibration / validation issues. He wants to clarify SlaterÕs and GuentherÕs roles in these activities.

3.0 ACTION ITEMS

3.1 Action Items Carried Forward

1. *Murphy*: collect inputs from MODIS Science Team members and prepare a statement for the team leaderÕs signature on which data products should be up for bid under the new DAAC Federation.